

I. AMENDMENTS

Amendments to the Claims:

This listing of all pending claims (including withdrawn claims) will replace all prior versions, and listings, of claims in the application. Cancelled and not entered claims are indicated with claim number and status only. The claims show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Listing of Claims:

1. (Previously Presented) A steering device for a toy, comprising:
right and left turning members, each receiving a wheel;
a tie rod to connect the right and left turning members with each other;
a coil and a magnetic body to move the tie rod between first and second positions by carrying a current to the coil,
wherein one of the coil and the magnetic body is provided on the tie rod, the other of the coil and the magnetic body is fixed on the toy, and the connecting member is moved when one of the coil and the magnetic body moves coaxially relative to the other to come close to and go away from each other, and
wherein the right and left turning members are turned by moving the tie rod so as to change a direction of the wheels.
2. (Previously Presented) The steering device for a toy as claimed in claim 1, wherein the magnetic body is provided on the tie rod, and the coil is fixed on the toy.
3. (Original) The steering device for a toy as claimed in claim 2, wherein the permanent magnet is provided so as to direct two poles of the permanent magnet to right and left directions, and the coil is provided so as to face an edge portion of the coil to one of the two poles of the permanent magnet.
4. (Previously Presented) The steering device for a toy as claimed in claim 1, wherein the tie rod centrally receives a spring for urging the connecting member into a neutral

position between the first and second positions, when the current is not carried to the coil.

5. (Original) The steering device as claimed in claim 1, further comprising:
a trim to hold the connecting member in a neutral position between the first and second positions by adjusting a position of the torsion spring,
wherein the trim includes an eccentric cam to receive an end of the torsion spring, and a lever to adjust the position of the eccentric cam.

6. (Currently Amended) A steering device for a toy, comprising:
right and left turning members to turn respective wheels;
a connecting member to connect the right and left turning members with each other;
an electromagnetic force applying member to apply an electromagnetic force to move the connecting member between a first position and a second position to turn the wheels;
a current carrying control unit to control an operation of the electromagnetic force applying member,
wherein the electromagnetic force applying member includes at least two components and one moves coaxially relative to another; and
a torsion spring for urging the connecting member into a neutral position between the first and second positions, when the current carrying control unit does not control the operation of the electromagnetic force applying member; and
a trim for adjusting the neutral position of the connecting member by adjusting a position of the torsion spring,
wherein the trim comprises an eccentric cam abutting the spring, and a lever connected to the cam for rotating the cam.

7. (Previously Presented) The steering device as claimed in claim 6, further comprising a suspension having a biasing member which contacts the right and left turning members;
wherein the turning members are biased in a first direction by the right and left edge portions.

8. (Previously Presented) The steering device as claimed in claim 6, further comprising: a suspension comprising two wheel shafts extending respectively from the turning

members, the suspension including a biasing member having right and left edge portions elastically deformable in upper and lower directions;

wherein the wheel shafts are movable in the upper and lower directions in a predetermined range, and the wheel shafts are pressed with the right and left edge portions by a biasing force of the biasing member so that the wheels are in contact with a ground.

9. (Currently Amended) A running toy, comprising:

a steering device for a toy, comprising:

first and second turning members to turn respective steering wheels;

a connecting member to connect the turning members with each other;

a coil and a magnetic body to move the connecting member between first and second positions by carrying a current to the coil; and

a torsion spring to keep the connecting member at a neutral position between the first and second positions, when the current is not carried in the coil,

wherein the turning members are turned by moving the connecting member between the first and second positions to change a direction of the steering wheels,

wherein one of the coil and the magnetic body is provided on the connecting member, and the other of the coil and the magnetic body is fixed to the toy,

wherein the connecting member is moved when the coil and the magnetic body come close to and go away from each other coaxially by controlling a current to be carried to the coil with a coil current carrying control unit; and

a device for adjusting a position of the spring into the neutral position.

10. (Original) The running toy as claimed in claim 9,

wherein the device for adjusting the position of the spring includes an eccentric cam to receive a first end of the torsion spring, and a lever to adjust the position of the eccentric cam.

11. (Currently Amended) A running toy, comprising:

a steering device including

first and second turning members;

a connecting member to connect the turning members with each other;

an electromagnetic force applying member to apply an electromagnetic force to move the connecting member;

a current carrying control unit to control a current carried to the electromagnetic force applying member, so that the connecting member is movable between two steering positions, wherein the electromagnetic force applying member includes at least two components and one moves coaxially relative to another;

a torsion spring for urging the connecting member into a neutral position between the two steering positions, when the current is not carried to the electromagnetic force applying member;

a suspension device to bias the turning members; and

a device for adjusting a position of the spring.

12. (Currently Amended) A steering device for a toy, comprising:
right and left turning members to turn right and left steering wheels rotatably mounted thereon;

a connecting member to connect the right and left turning members,

an air core coil and a magnetic body, one of the air core coil and the magnetic body being located on the connecting member and the other being fixed on the toy, to use coil current to move the connecting member between at least two steering positions as the coil and magnetic body move coaxially towards/away from each other; and

a torsion spring for urging the connecting member into a neutral position between the at least two steering positions, when no coil current is applied.

13. (Previously Presented) A steering device for a toy, comprising:
right and left turning members to turn right and left steering wheels respectively;
a tie rod to connect the right and left turning members together;
a coil fixed to a chassis of the toy to apply, upon receiving current, an electromagnetic force to move the tie rod in right and left directions, to turn the right and left steering wheels;
a magnetic body located on the tie rod to move coaxially with and attract/repel the coil;
a control unit to control current to the coil to cause the tie rod to move; and
a torsion spring for urging the tie rod into a neutral position, when the coil current is halted.

14. (Currently Amended) A running toy comprising:

a steering device for the toy, including

right and left turning units to turn right and left steering wheels, respectively;

a tying member, to tie and move the right and left turning units into at least two steering positions;

an air core coil stationary on the toy and a magnetic body movable with the tying member, which coil and body move the tying member in right and left directions when a current is applied to the air core coil, thereby coaxially moving the air core coil toward/away from the magnetic body; and

a torsion spring for urging the tying member into a neutral position between the at least two steering positions, when the current is halted.

15. (Previously Presented) A running toy, comprising:

a steering device including

right and left turning units to turn right and left steering wheels, respectively;

a tie rod to connect and move the right and left turning units into at least two steering positions;

a coil on the tie rod to apply an electromagnetic force to move the tie rod in left and right directions to turn the right and left steering wheels;

a pair of spaced permanent magnets fixed on the toy to attract/repel the coil moving coaxially therebetween due to the electromagnetic force;

a control unit to control a current to the coil;

a spring for urging the tie rod into a neutral position between the at least two steering positions when the current is halted; and

a suspension device to urge the right and left turning units, which are movable in first and second opposite directions in a predetermined range, in a direction perpendicular to the right and left directions.

16. (Previously Presented) A running toy, comprising:

a steering device including

right and left turning units to turn right and left steering wheels, respectively;

a tie rod to connect and move the right and left turning units into at least two steering positions;

a pair of spaced coils fixed to the toy to apply an electromagnetic force to move the tie rod in right and left directions to turn the right and left steering wheels;

a permanent magnetic on the tie rod, coaxially between the pair of coils, to attract/repel

the coils due to the electromagnetic force;

a control unit to control a current to the coils;

a spring for urging the tie rod into a neutral position between the at least two steering positions when the current is halted; and

a suspension device to urge the right and left turning units, which are movable in first and second opposite directions in a predetermined range, in a direction perpendicular to the right and left directions.

17. (Previously Presented) The steering device for a toy as claimed in claim 4, further comprising a turnable device at the tie rod for adjusting the position of the spring.

18. (Original) The steering device for a toy as claimed in claim 12, further comprising a turnable device for adjusting the position of the spring.

19. (Original) The steering device for a toy as claimed in claim 13, further comprising a turnable device for adjusting the position of the spring.

20. (Original) The steering device for a toy as claimed in claim 14, further comprising a turnable device for adjusting the position of the spring.

21. (Original) The running toy as claimed in claim 15, further comprising a turnable device for adjusting the position of the spring.

22. (Previously Presented) The running toy as claimed in claim 16, further comprising a turnable device for adjusting the position of the spring.

23. (Previously Presented) The steering device as claimed in claim 1, wherein the magnetic body includes a permanent magnet or a material which is magnetized in a magnetic field.

24. (Previously Presented) The steering device as claimed in claim 1, wherein the tie rod is moved by both an attractive force and a repulsive force which are generated between the pair of coils and the magnetic body.

25. (Previously Presented) The steering device as claimed in claim 1, wherein the tie rod is movable between a left steering position, through a neutral position, and a right steering position.

26. (Previously Presented) The steering device as claimed in claim 1, wherein the tie rod takes the neutral position when the current is not carried to the coil.

27. (Previously Presented) The steering device as claimed in claim 1, wherein the tie rod takes the left and right positions, respectively, corresponding to a direction of the current being carried to the coil.

28. (Previously Presented) The running toy as claimed in claim 9, wherein the toy is remotely controlled.

29. (Previously Presented) The running toy as claimed in claim 11, wherein the toy is remotely controlled.

30. (Previously Presented) The running toy as claimed in claim 14, wherein the toy is remotely controlled.

31. (Previously Presented) The running toy as claimed in claim 15, wherein the toy is remotely controlled.

32. (Previously Presented) The running toy as claimed in claim 16, wherein the toy is remotely controlled.

33. (Previously Presented) The steering device as claimed in claim 1, wherein the coil is round.

34. (Previously Presented) The running toy as claimed in claim 9, wherein the coil is round.

35. (Previously Presented) The running toy as claimed in claim 15, wherein the coil is round.

36. (Previously Presented) The steering device as claimed in claim 1, wherein the coil has a solid or air core.

37. (Previously Presented) The running toy as claimed in claim 9, wherein the coil has a solid or air core.

38. (Previously Presented) The running toy as claimed in claim 15, wherein the coil has a solid or air core.

39. (Previously Presented) The steering device as claimed in claim 1, wherein the magnetic body is a disc shape.

40. (Previously Presented) The running toy as claimed in claim 16, wherein a side surface of each coil faces the magnetic body and becomes the same pole when the current is carried to the right and left coils, generating an attractive force between one of the coils and the magnetic body, and a repulsive force between the other of the coils and the magnetic body.

41. (Previously Presented) The running toy as claimed in claim 16, wherein the current is selectively carried to one of the coils, and the tie rod is moved by the electromagnetic force generated between the coil to which the current is carried, and the magnetic body.